

WHAT IS CLAIMED IS:

Claims 1-6 for class 13 A. Williams

1. A semiconductor dynamic sensor comprising:

a semiconductor sensor chip having a member movable according to a dynamic force applied thereto, the semiconductor sensor chip outputting a sensor signal in response to an amount of movement of the movable member; and

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a substrate for mounting and supporting the semiconductor sensor chip thereon, wherein:

the semiconductor sensor chip is connected to the substrate via an adhesive film.

2. The semiconductor dynamic sensor as in claim 1, further including a package case, wherein:

the substrate is a semiconductor chip having a circuit for processing the sensor signal;

the semiconductor sensor chip is connected to a first surface of the semiconductor chip having the processing circuit; and

a second surface of the semiconductor chip having the processing circuit is partially connected to the package case.

3. The semiconductor dynamic sensor as in claim 1, wherein:

the adhesive film is made of a thermosetting resin or a thermoplastic resin.

4. The semiconductor dynamic sensor as in claim 3,
wherein:

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a thickness of the adhesive film is less than 50. μ
m.

5. The semiconductor dynamic sensor as in claim 3,
wherein:

an elasticity coefficient of the adhesive film is
less than 3,000 mega pascal.

6. The semiconductor dynamic sensor as in claim 1,
wherein:

the semiconductor sensor chip is a sensor chip for
sensing acceleration.

7. A method of manufacturing a semiconductor
dynamic sensor having a semiconductor sensor chip and a
substrate for mounting the semiconductor sensor chip
thereon via an adhesive film, the method comprising steps
of

sticking the adhesive film to a semiconductor wafer
having a plurality of the sensor chips;

dicing the wafer having a plurality of sensor chips
together with the adhesive film into individual sensor
chips; and

connecting the sensor chip to the substrate via the adhesive film.

8. The method of manufacturing a semiconductor dynamic sensor as in claim 7, the method further including a step of coating a surface of the substrate, on which the sensor chip is mounted, with a resin material to smooth the surface.

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